

ABSTRACT OF THE DISCLOSURE

The invention includes, for example, a radiation patterning tool which can be utilized to form relatively circular contacts in situations in which an array of contacts has a different pitch along a row of the array than along a column of the array. An alternating phase shift can give a well-defined contact in the small pitch (dense) direction. Rim shifters are added in the larger pitch direction to force the circular form of the contact openings. In further aspects of the invention, side-lobe-suppressing patterns can be added between adjacent rims. The invention also includes methods of forming radiation patterning tools.